Contents Vol. 47 (1992)

Scientific-Technical Section

The applicability of space imagery to the small-scale topographic mapping of developing countries: A case study—the Sudan
G. Petrie and A.E.H. El Niweiri (Glasgow, UK) 1

Operational systems for mapping from satelite imagery
D.J. Gugan (Cambridge, UK) 43

Global and environmental monitoring: the challenge to educators
K.J. Beek and H.A.M.J. van Gils (Enschede, The Netherlands) 51

Reports Section

SSD'91 Conference - Advances in Spatial Databases—A. Frank 59

Conference of the ISPRS Subcommission Working Group II/III on Digital Photogrammetric Systems—I. Colomina 60

OEEPE Workshop: Data Quality in Land Information Systems—M. Sowton 63

Report on the Photogrammatic Week—M. Ehlers 66

ISPRS&OEEPE Joint Workshop on Updating Digital Data by Photogrammetric Methods—O. Jacobi 69

Spatial Data 2000 Conference—M.J. Smith 71

5th Latin American Remote Sensing Symposium—S.C. Chen 72

The 12th Asian Remote Sensing Conference—B. Forster 73

News Section

News 75

Calendar 77

Scientific-Technical Section

Special Issue: **Physical Measurements and Signatures in Remote Sensing**, edited by G. Guyot

Preface iii

Current status and future developments in radar remote sensing
D.L. Evans (Pasadena, CA, USA) 79

Multispectral satellite observations for arid land studies
B.J. Choudhury (Greenbelt, MD,USA) 101

Passive microwave remote sensing of soil moisture: results from HAPEX, FIFE and MONSOON 90
T. Schmugge, T.J. Jackson, W.P. Kustas (Beltsville, MD, USA) and J.R. Wang (Greenbelt, MD, USA) 127

Remote sensing and crop production models: present trends
R. Delécolle (Montfavet Cedex, France), S.J. Maas (Weslaco, TX, USA), M. Guérif and F. Baret (Montfavet Cedex, France) 145

Biospheric models, measurements and remote sensing of vegetation
N.S. Goel (Binghamton, NY, USA) and J.M. Norman (Madison, WI, USA) 163

Development of models for thermal infrared radiation above and within plant canopies
K.T. Paw U (Thiverval-Griguou, France) 189

Remotely sensed blue and red fluorescence emission for monitoring vegetation
I. Moya (Orsay, France), G. Guyot (Montfavet, France) and Y. Goulas (Orsay, France) 205

Obituary 233

Reports Section
14th International Symposium of CIPA—P. Waldhäusl 235

News Section
News 238
Calendar 239

Special Issue: **The Washington Congress**, edited by D.A. Tait

The President's Welcome iii
The Congress Director's Welcome v

Scientific-Technical Section
Sensors for photogrammetric mapping: review and prospects
K. Torlegård (Stockholm, Sweden) 241
Review of integrated digital systems: evolution and adoption
L.W. Fritz (Philadelphia, PA, USA) 263
Remote sensing activities in Asia
S. Murai (Tokyo, Japan) 275
From Columbus to Columbia
S.A. Morain (Albuquerque, NM, USA) 285
Recent advances of photogrammetry in robot vision
A. Gruen (Zürich, Switzerland) 307
Basic considerations in development coooperation: the application of remote sensing in developing and newly industrialized countries
K.I. Itten (Zürich, Switzerland), C.N. Specter (Miami, FL, USA) and T.M. Sausen (São José dos Campos, Brazil) 325

News Section
News 333
Calendar 335
Company Profiles of ISPRS Sustaining Members 336

Scientific-Technical Section
Observation of mesoscale ocean currents from GEOSAT altimeter data
M.C. Naaije, K.F. Wakker, R. Scharroo and B.A.C. Ambrosius (Delft, The Netherlands) 347
On the wind power law and atmospheric stability effects in ocean scatterometry
G.L. Geernaert and W.C. Keller (Washington, DC, USA) 369

Reports Section
European International Space Year Conference — K.J. Murray 387
SPIE Application of AI X: Machine Vision and Robotics — H.I. Christensen 389

News Section
News 393
Calendar 395

Indexes Volume 47, 1992 397